

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A tissue extraction and maceration device, comprising:
 - an outer tube having a substantially open distal end that is adapted to be placed on a tissue surface;
 - a shaft rotatably disposed within the outer tube and movable between a first, proximal position in which the shaft is fully disposed within the outer tube, and a second, distal position in which a portion of a distal end of the shaft extends through the substantially open distal end of the outer tube;
 - a tissue harvesting tip formed on the distal end of the shaft, the tissue harvesting tip being effective to excise a tissue sample;
 - ~~_____ a cutting member coupled to the shaft at a position proximal to the tissue harvesting tip, the cutting member being effective to macerate a tissue sample excised by the tissue harvesting tip; and~~
 - a sizing screen disposed within the outer tube and positioned proximal to the tissue harvesting tip and the cutting member, the sizing screen having openings with a size that prevent passage of excised tissue samples having a size greater than a size of the openings; and
 - _____ a cutting member disposed within the outer tube and coupled to the shaft at a position proximal to the tissue harvesting tip and adjacent to the sizing screen such that excised tissue samples prevented from passing through the sizing screen by the openings are macerated by the cutting member to form tissue samples having a size that can pass through the openings.
2. (Original) The device of claim 1, further comprising a biasing element effective to bias the shaft to the proximal position.
3. (Original) The device of claim 2, further comprising a trigger mechanism connected to the shaft, wherein, upon actuation, the trigger mechanism is effective to overcome the biasing force to move the shaft from the proximal position to the distal position.
4. (Currently Amended) The device of claim 1, wherein the substantially open distal end of the outer tube is adapted to form a seal with a tissue surface.

5. (Previously Presented) The device of claim 1, wherein the substantially open distal end of the outer tube is defined by an edge wall that is at an angle with respect to a longitudinal axis of the outer tube.
6. (Original) The device of claim 5, wherein the angle is in the range of about 30° to 75°.
7. (Original) The device of claim 5, wherein the angle is about 40°.
8. (Original) The device of claim 5, wherein the edge wall includes surface features formed thereon.
9. (Original) The device of claim 8, wherein the surface features comprise ridges.
10. (Original) The device of claim 1, wherein the cutting member comprises at least one blade member extending radially from the shaft.
11. (Original) The device of claim 10, wherein each blade member has a shape selected from the group consisting of a rectangular shape, a curved shaped, a triangular shape, a square shape, an irregular shape, and combinations thereof.
12. (Withdrawn) The device of claim 1, wherein the harvesting tip comprises a cone-shaped member having a plurality of cutting teeth formed on an outer surface thereof.
13. (Original) The device of claim 1, wherein the harvesting tip comprises a substantially semi-cylindrical housing having a cutting surface formed around a periphery thereof.
14. (Original) The device of claim 1, wherein the harvesting tip is adapted to penetrate tissue to remove a predetermined volume of tissue when moved from the proximal position to the distal position.

15. (Original) The device of claim 14, wherein the predetermined volume of tissue, per tissue sample, is in the range of about 0.5 cm^3 to 1.5 cm^3 .
16. (Original) The device of claim 14, wherein the predetermined volume of tissue, per tissue sample, is about 0.9 cm^3 .
17. (Cancelled).
18. (Cancelled).
19. (Currently Amended) The device of claim 1, wherein the ~~sizing screen includes openings formed therein and having~~ have a diameter in the range of about 0.7 mm to 1.3 mm.
20. (Previously Presented) The device of claim 1, wherein the ~~sizing screen includes openings formed therein and having~~ have a diameter of about 1.0 mm.
21. (Original) The device of claim 1, further comprising a driver mechanism coupled to the shaft and effective to rotate the shaft at a speed in the range of about 100 to 5000 rpm.
22. (Original) The device of claim 1, wherein the harvesting tip of the shaft is adapted to extend beyond the outer tube by a predetermined distance.
23. (Original) The device of claim 22, wherein the predetermined distance is in the range of about 1 mm to 5 mm.
24. (Original) The device of claim 22, wherein the predetermined distance is about 3 mm.
25. (Original) The device of claim 1, wherein the outer tube is adapted to be coupled to a vacuum pump that is effective to draw tissue through at least a portion of the outer tube.
- 26-30 (Cancelled).

31. (Currently Amended) A tissue harvesting device, comprising:
a handle housing having a trigger coupled thereto;
an outer tube extending from the handle housing and rotatable relative to the handle housing;
a shaft having a tissue harvesting tip formed on a distal end thereof, the tissue harvesting tip being effective to excise a tissue sample, the shaft being rotatably disposed within the outer tube and movable between a first, proximal position in which the shaft-tissue harvesting tip is fully disposed within the outer tube, and a second, distal position in which a portion of a distal end of the shaft the tissue harvesting tip extends through a substantially open distal end of the outer tube;
~~— a tissue harvesting tip formed on the distal end of the shaft, the tissue harvesting tip being effective to excise a tissue sample; and~~
a cutting member coupled to the shaft at a position proximal to the tissue harvesting tip and fully disposed within the outer tube when the shaft is in both the proximal and distal positions, the cutting member being effective to macerate a tissue sample excised by the tissue harvesting tip and received within the outer tube.

32. (Currently Amended) A tissue harvesting device, comprising:
a substantially hollow cylindrical member having a substantially flattened distal end and a plurality of cutting teeth formed around an outer sidewall thereof and having openings formed therein and extending into an inner lumen of the cylindrical member, the plurality of cutting teeth each having a cutting edge that forms at least a portion of an edge of each opening, the plurality of cutting teeth protruding from the outer sidewall such that the plurality of cutting teeth are effective to excise a plurality of tissue samples upon axial rotation of the cylindrical member and to deliver the plurality of tissue samples to the inner lumen.

33. (New) The device of claim 1, wherein the tissue harvesting tip and the cutting member are configured such that tissue excised and macerated remains viable.

34. (New) The device of claim 1, wherein the tissue harvesting tip is configured to excise tissue without tearing the tissue to provide a viable tissue sample.

35. (New) The device of claim 1, wherein the tissue harvesting tip and the cutting member are configured such that a size of tissue excised by the tissue harvesting tip is larger than a size of the

tissue macerated by the cutting member.

36. (New) The device of claim 1, wherein the tissue harvesting tip is configured to retrieve a predetermined volume of tissue.
37. (New) The device of claim 1, wherein the sizing screen has openings with a size that are configured to prevent passage of excised tissue samples having a size greater than a size of the openings and the cutting member is effective to macerate the excised tissue samples to form tissue samples with a predetermined size that are allowed to pass through the openings.
38. (New) The device of claim 37, wherein the sizing screen and the cutting member are positioned adjacent to one another such that the cutting member can macerate tissue prevented from passing through the openings in the sizing screen.
39. (New) The device of claim 31, wherein the tissue harvesting tip and the cutting member are configured such that tissue excised and macerated remains viable.